05⁹⁰/1/22

#3

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/964,858

DATE: 01/31/2002
TIME: 15:46:08

Input Set : A:\Hostetter.ST25.txt
Output Set: N:\CRF3\01312002\I964858.raw

ENTERED

```
 3 <110> APPLICANT: HOSTETTER, Margaret K.
 4         DEVORE-CARTER, Denise
 6 <120> TITLE OF INVENTION: ANTIBODIES TO THE PROPEPTIDE OF CANDIDA ALBICANS
 8 <130> FILE REFERENCE: P07274US01/BAS
10 <140> CURRENT APPLICATION NUMBER: US 09/964,858
11 <141> CURRENT FILING DATE: 2002-01-11
13 <150> PRIOR APPLICATION NUMBER: US 60/237,082
14 <151> PRIOR FILING DATE: 2000-09-28
16 <160> NUMBER OF SEQ ID NOS: 4
18 <170> SOFTWARE: PatentIn version 3.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1664
22 <212> TYPE: PRT
23 <213> ORGANISM: Candida albicans
25 <400> SEQUENCE: 1
27 Met Asn Ser Thr Pro Ser Lys Leu Leu Pro Ile Asp Lys His Ser His
28 1               5                   10                  15
31 Leu Gln Leu Gln Pro Gln Ser Ser Ser Ala Ser Ile Phe Asn Ser Pro
32             20                  25                  30
35 Thr Lys Pro Leu Asn Phe Pro Arg Thr Asn Ser Lys Pro Ser Leu Asp
36         35                  40                  45
39 Pro Asn Ser Ser Ser Asp Thr Tyr Thr Ser Glu Gln Asp Gln Glu Lys
40     50                  55                  60
43 Gly Lys Glu Glu Lys Lys Asp Thr Ala Phe Gln Thr Ser Phe Asp Arg
44 65                  70                  75                  80
47 Asn Phe Asp Leu Asp Asn Ser Ile Asp Ile Gln Gln Thr Ile Gln His
48             85                  90                  95
51 Gln Gln Gln Gln Pro Gln Gln Gln Gln Leu Ser Gln Thr Asp Asn
52             100                 105                 110
55 Asn Leu Ile Asp Glu Phe Ser Phe Gln Thr Pro Met Thr Ser Thr Leu
56         115                 120                 125
59 Asp Leu Thr Lys Gln Asn Pro Thr Val Asp Lys Val Asn Glu Asn His
60     130                 135                 140
63 Ala Pro Thr Tyr Ile Asn Thr Ser Pro Asn Lys Ser Ile Met Lys Lys
64 145                 150                 155                 160
67 Ala Thr Pro Lys Ala Ser Pro Lys Lys Val Ala Phe Thr Val Thr Asn
68             165                 170                 175
71 Pro Glu Ile His His Tyr Pro Asp Asn Arg Val Glu Glu Glu Asp Gln
72             180                 185                 190
75 Ser Gln Gln Lys Glu Asp Ser Val Glu Pro Pro Leu Ile Gln His Gln
76             195                 200                 205
79 Trp Lys Asp Pro Ser Gln Phe Asn Tyr Ser Asp Glu Asp Thr Asn Ala
80     210                 215                 220
```

```
 83 Ser Val Pro Pro Thr Pro Pro Leu His Thr Thr Lys Pro Thr Phe Ala
 84 225             230         235             240
 87 Gln Leu Leu Asn Lys Asn Asn Glu Val Asn Ser Glu Pro Glu Ala Leu
 88  .              245             250             255
 91 Thr Asp Met Lys Leu Lys Arg Glu Asn Phe Ser Asn Leu Ser Leu Asp
 92             260             265             270
 95 Glu Lys Val Asn Leu Tyr Leu Ser Pro Thr Asn Asn Asn Asn Ser Lys
 96         275             280             285
 99 Asn Val Ser Asp Met Asp Ser His Leu Gln Asn Leu Gln Asp Ala Ser
100      290             295             300
103 Lys Asn Lys Thr Asn Glu Asn Ile His Asn Leu Ser Phe Ala Leu Lys
104 305             310             315             320
107 Ala Pro Lys Asn Asp Ile Glu Asn Pro Leu Asn Ser Leu Thr Asn Ala
108             325             330             335
111 Asp Ile Ser Leu Arg Ser Ser Gly Ser Ser Gln Ser Ser Leu Gln Ser
112             340             345             350
115 Leu Arg Asn Asp Asn Arg Val Leu Glu Ser Val Pro Gly Ser Pro Lys
116         355             360             365
119 Lys Val Asn Pro Gly Leu Ser Leu Asn Asp Gly Ile Lys Gly Phe Ser
120      370             375             380
123 Asp Glu Val Val Glu Ser Leu Leu Pro Arg Asp Leu Ser Arg Asp Lys
124 385             390             395             400
127 Leu Glu Thr Thr Lys Glu His Asp Ala Pro Glu His Asn Asn Glu Asn
128             405             410             415
131 Phe Ile Asp Ala Lys Ser Thr Asn Thr Asn Lys Gly Gln Leu Leu Val
132             420             425             430
135 Ser Ser Asp Asp His Leu Asp Ser Phe Asp Arg Ser Tyr Asn His Thr
136         435             440             445
139 Glu Gln Ser Ile Leu Asn Leu Leu Asn Ser Ala Ser Gln Ser Gln Ile
140      450             455             460
143 Ser Leu Asn Ala Leu Glu Lys Gln Arg Gln Thr Gln Glu Gln Glu Gln
144 465             470             475             480
147 Thr Gln Ala Ala Glu Pro Glu Glu Glu Thr Ser Phe Ser Asp Asn Ile
148             485             490             495
151 Lys Val Lys Gln Glu Pro Lys Ser Asn Leu Glu Phe Val Lys Val Thr
152             500             505             510
155 Ile Lys Lys Glu Pro Val Ser Ala Thr Glu Ile Lys Ala Pro Lys Arg
156         515             520             525
159 Glu Phe Ser Ser Arg Ile Leu Arg Ile Lys Asn Glu Asp Glu Ile Ala
160      530             535             540  .
163 Glu Pro Ala Asp Ile His Pro Lys Lys Glu Asn Glu Ala Asn Ser His
164 545             550             555             560
167 Val Glu Asp Thr Asp Ala Leu Leu Lys Lys Ala Leu Asn Asp Asp Glu
168             565             570             575
171 Glu Ser Asp Thr Thr Gln Asn Ser Thr Lys Met Ser Ile Arg Phe His
172         580             585             590  .
175 Ile Asp Ser Asp Trp Lys Leu Glu Asp Ser Asn Asp Gly Asp Arg Glu
176         595             600             605
179 Asp Asn Asp Asp Ile Ser Arg Phe Glu Lys Ser Asp Ile Leu Asn Asp
```

```
180      610                    615                    620
183 Val Ser Gln Thr Ser Asp Ile Ile Gly Asp Lys Tyr Gly Asn Ser Ser
184 625                    630                    635                    640
187 Ser Glu Ile Thr Thr Lys Thr Leu Ala Pro Pro Arg Ser Asp Asn Asn
188                    645                    650                    655
191 Asp Lys Glu Asn Ser Lys Ser Leu Glu Asp Pro Ala Asn Asn Glu Ser
192              660                    665                    670
195 Leu Gln Gln Gln Leu Glu Val Pro His Thr Lys Glu Asp Asp Ser Ile
196         675                    680                    685
199 Leu Ala Asn Ser Ser Asn Ile Ala Pro Pro Glu Glu Leu Thr Leu Pro
200         690                    695                    700
203 Val Val Glu Ala Asn Asp Tyr Ser Ser Phe Asn Asp Val Thr Lys Thr
204 705                    710                    715                    720
207 Phe Asp Ala Tyr Ser Ser Phe Glu Glu Ser Leu Ser Arg Glu His Glu
208                    725                    730                    735
211 Thr Asp Ser Lys Pro Ile Asn Phe Ile Ser Ile Trp His Lys Gln Glu
212              740                    745                    750
215 Lys Gln Lys Lys His Gln Ile His Lys Val Pro Thr Lys Gln Ile Ile
216         755                    760                    765
219 Ala Ser Tyr Gln Gln Tyr Lys Asn Glu Gln Glu Ser Arg Val Thr Ser
220         770                    775                    780
223 Asp Lys Val Lys Ile Pro Asn Ala Ile Gln Phe Lys Lys Phe Lys Glu
224 785                    790                    795                    800
227 Val Asn Val Met Ser Arg Arg Val Val Ser Pro Asp Met Asp Asp Leu
228              805                    810                    815
231 Asn Val Ser Gln Phe Leu Pro Glu Leu Ser Glu Asp Ser Gly Phe Lys
232         820                    825                    830
235 Asp Leu Asn Phe Ala Asn Tyr Ser Asn Asn Thr Asn Arg Pro Arg Ser
236         835                    840                    845
239 Phe Thr Pro Leu Ser Thr Lys Asn Val Leu Ser Asn Ile Asp Asn Asp
240         850                    855                    860
243 Pro Asn Val Val Glu Pro Pro Glu Pro Lys Ser Tyr Ala Glu Ile Arg
244 865                    870                    875                    880
247 Asn Ala Arg Arg Leu Ser Ala Asn Lys Ala Ala Pro Asn Gln Ala Pro
248              885                    890                    895
251 Pro Leu Pro Pro Gln Arg Gln Pro Ser Ser Thr Arg Ser Asn Ser Asn
252         900                    905                    910
255 Lys Arg Val Ser Arg Phe Arg Val Pro Thr Phe Glu Ile Arg Arg Thr
256         915                    920                    925
259 Ser Ser Ala Leu Ala Pro Cys Asp Met Tyr Asn Asp Ile Phe Asp Asp
260         930                    935                    940
263 Phe Gly Ala Gly Ser Lys Pro Thr Ile Lys Ala Glu Gly Met Lys Thr
264 945                    950                    955                    960
267 Leu Pro Ser Met Asp Lys Asp Asp Val Lys Arg Ile Leu Asn Ala Lys
268         965                    970                    975
271 Lys Gly Val Thr Gln Asp Glu Tyr Ile Asn Ala Lys Leu Val Asp Gln
272         980                    985                    990
275 Lys Pro Lys Lys Asn Ser Ile Val  Thr Asp Pro Glu Asp  Arg Tyr Glu
276         995                    1000                   1005
```

RAW SEQUENCE LISTING   DATE: 01/31/2002
PATENT APPLICATION: US/09/964,858   TIME: 15:46:08

Input Set : A:\Hostetter.ST25.txt
Output Set: N:\CRF3\01312002\I964858.raw

```
279 Glu Leu  Gln Gln Thr Ala Ser  Ile His Asn Ala Thr  Ile Asp Ser
280      1010                1015                1020
283 Ser Ile  Tyr Gly Arg Pro Asp  Ser Ile Ser Thr Asp  Met Leu Pro
284      1025                1030                1035
287 Tyr Leu  Ser Asp Glu Leu Lys  Lys Pro Pro Thr Ala  Leu Leu Ser
288      1040                1045                1050
291 Ala Asp  Arg Leu Phe Met Glu  Gln Glu Val His Pro  Leu Arg Ser
292      1055                1060                1065
295 Asn Ser  Val Leu Val His Pro  Gly Ala Gly Ala Ala  Thr Asn Ser
296      1070                1075                1080
299 Ser Met  Leu Pro Glu Pro Asp  Phe Glu Leu Ile Asn  Ser Pro Ala
300      1085                1090                1095
303 Arg Asn  Val Ser Asn Asn Ser  Asp Asn Val Ala Ile  Ser Gly Asn
304      1100                1105                1110
307 Ala Ser  Thr Ile Ser Phe Asn  Gln Leu Asp Met Asn  Phe Asp Asp
308      1115                1120                1125
311 Gln Ala  Thr Ile Gly Gln Lys  Ile Gln Glu Gln Pro  Ala Ser Lys
312      1130                1135                1140
315 Ser Ala  Asn Thr Val Arg Gly  Asp Asp Asp Gly Leu  Ala Ser Ala
316      1145                1150                1155
319 Pro Glu  Thr Pro Arg Thr Pro  Thr Lys Lys Glu Ser  Ile Ser Ser
320      1160                1165                1170
323 Lys Pro  Ala Lys Leu Ser Ser  Ala Ser Pro Arg Lys  Ser Pro Ile
324      1175                1180                1185
327 Lys Ile  Gly Ser Pro Val Arg  Val Ile Lys Lys Asn  Gly Ser Ile
328      1190                1195                1200
331 Ala Gly  Ile Glu Pro Ile Pro  Lys Ala Thr His Lys  Pro Lys Lys
332      1205                1210                1215
335 Ser Phe  Gln Gly Asn Glu Ile  Ser Asn His Lys Val  Arg Asp Gly
336      1220                1225                1230
339 Gly Ile  Ser Pro Ser Ser Gly  Ser Glu His Gln Gln  His Asn Pro
340      1235                1240                1245
343 Ser Met  Val Ser Val Pro Ser  Gln Tyr Thr Asp Ala  Thr Ser Thr
344      1250                1255                1260
347 Val Pro  Asp Glu Asn Lys Asp  Val Gln His Lys Pro  Arg Glu Lys
348      1265                1270                1275
351 Gln Lys  Gln Lys His His His  Arg His His His His  His His Lys
352      1280                1285                1290
355 Gln Lys  Thr Asp Ile Pro Gly  Val Val Asp Asp Glu  Ile Pro Asp
356      1295                1300                1305
359 Val Gly  Leu Gln Glu Arg Gly  Lys Leu Phe Phe Arg  Val Leu Gly
360      1310                1315                1320
363 Ile Lys  Asn Ile Asn Leu Pro  Asp Ile Asn Thr His  Lys Gly Arg
364      1325                1330                1335
367 Phe Thr  Leu Thr Leu Asp Asn  Gly Val His Cys Val  Thr Thr Pro
368      1340                1345                1350
371 Glu Tyr  Asn Met Asp Asp His  Asn Val Ala Ile Gly  Lys Glu Phe
372      1355                1360                1365
375 Glu Leu  Thr Val Ala Asp Ser  Leu Glu Phe Ile Leu  Thr Leu Lys
```

RAW SEQUENCE LISTING   DATE: 01/31/2002
PATENT APPLICATION: US/09/964,858   TIME: 15:46:08

Input Set : A:\Hostetter.ST25.txt
Output Set: N:\CRF3\01312002\I964858.raw

```
376     1370                1375                1380
379 Ala Ser Tyr Glu Lys Pro Arg Gly Thr Leu Val Glu Val Thr Glu
380     1385                1390                1395
383 Lys Lys Val Val Lys Ser Arg Asn Arg Leu Ser Arg Leu Phe Gly
384     1400                1405                1410
387 Ser Lys Asp Ile Ile Thr Thr Thr Lys Phe Val Pro Thr Glu Val
388     1415                1420                1425
391 Lys Asp Thr Trp Ala Asn Lys Phe Ala Pro Asp Gly Ser Phe Ala
392     1430                1435                1440
395 Arg Cys Tyr Ile Asp Leu Gln Gln Phe Glu Asp Gln Ile Thr Gly
396     1445                1450                1455
399 Lys Ala Ser Gln Phe Asp Leu Asn Cys Phe Asn Glu Trp Glu Thr
400     1460                1465                1470
403 Met Ser Asn Gly Asn Gln Pro Met Lys Arg Gly Lys Pro Tyr Lys
404     1475                1480                1485
407 Ile Ala Gln Leu Glu Val Lys Met Leu Tyr Val Pro Arg Ser Asp
408     1490                1495                1500
411 Pro Arg Glu Ile Leu Pro Thr Ser Ile Arg Ser Ala Tyr Glu Ser
412     1505                1510                1515
415 Ile Asn Glu Leu Asn Asn Glu Gln Asn Asn Tyr Phe Glu Gly Tyr
416     1520                1525                1530
419 Leu His Gln Glu Gly Gly Asp Cys Pro Ile Phe Lys Lys Arg Phe
420     1535                1540                1545
423 Phe Lys Leu Met Gly Thr Ser Leu Leu Ala His Ser Glu Ile Ser
424     1550                1555                1560
427 His Lys Thr Arg Ala Lys Ile Asn Leu Ser Lys Val Val Asp Leu
428     1565                1570                1575
431 Ile Tyr Val Asp Lys Glu Asn Ile Asp Arg Ser Asn His Arg Asn
432     1580                1585                1590
435 Phe Ser Asp Val Leu Leu Leu Asp His Ala Phe Lys Ile Lys Phe
436     1595                1600                1605
439 Ala Asn Gly Glu Leu Ile Asp Phe Cys Ala Pro Asn Lys His Glu
440     1610                1615                1620
443 Met Lys Ile Trp Ile Gln Asn Leu Gln Glu Ile Ile Tyr Arg Asn
444     1625                1630                1635
447 Arg Phe Arg Arg Gln Pro Trp Val Asn Leu Met Leu Gln Gln Gln
448     1640                1645                1650
451 Gln Gln Gln Gln Gln Gln Gln Ser Ser Gln Gln
452     1655                1660
455 <210> SEQ ID NO: 2
456 <211> LENGTH: 5195
457 <212> TYPE: DNA
458 <213> ORGANISM: Candida albicans
460 <400> SEQUENCE: 2
461 cccaaaaaag ataaaataaa aacaaaacaa aacaaaagta ctaacaaatt attgaaactt    60
463 ttaatttta ataaagaatc agtagatcta ttgttaaaag aaatgaactc aactccaagt   120
465 aaattattac cgatagataa acattctcat ttacaattac agcctcaatc gtcctcggca   180
467 tcaatattta attccccaac aaaaccattg aatttcccca gaacaaattc caagccgagt   240
469 ttagatccaa attcaagctc tgatacctac actagcgaac aagatcaaga gaaagggaaa   300
```

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/964,858

DATE: 01/31/2002
TIME: 15:46:09

Input Set : A:\Hostetter.ST25.txt
Output Set: N:\CRF3\01312002\I964858.raw

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date